

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Mark Wesselmann *et. al.*

Application No.: 10/716,992

Filed: November 19, 2003

For: PROTECTING THIN  
SEMICONDUCTOR WAFERS  
DURING BACK-GRINDING IN  
HIGH-VOLUME PRODUCTION

Confirmation No.: 7582

Examiner: Ghyka, Alexander G.

Art Unit: 2812

**COMMUNICATION - COMMENTS ON  
FORMAL DRAWINGS  
REQUIREMENT AND STATEMENT  
OF REASONS FOR  
ALLOWANCE**

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**Mail Stop Issue Fee**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Applicants thank the Examiner for the phone conference on 01/17/2007 clarifying the formal drawings requirement listed in the Transaction History of the PAIR record for this application. The Examiner indicated that even though he did not issue the formal drawings requirement, the Applicants should submit formal drawings. Therefore, four sheets of formal drawings are hereby submitted with this letter.

In response to the Examiner's Statement of Reasons for Allowance, Applicants note that claim 1 recites:

1. A protective disk for protecting a semiconductor wafer during processing, comprising:

an adhesive layer including a first surface region configured to adhere to the semiconductor wafer, the adhesive layer including a second surface region opposite to the first surface region, the adhesive layer comprising a high molecular weight polymer,

wherein the polymer is soluble in one of the group consisting of: a mildly alkaline solution and a mildly acidic solution; and

a support layer coupled to the second surface region of the adhesive layer, the support layer being configured to support the adhesive layer and the entire semiconductor wafer during processing.

Applicants also note that claim 37 recites that:

37 A disposable disk for protecting a semiconductor wafer during a process, the disposable disk comprising:

a substantially circular plate configured for supporting an entire surface of the semiconductor wafer, the circular plate being characterized by a plate diameter substantially the same as the wafer diameter of the semiconductor wafer, the circular plate comprising a polymer material removable by contact with a cleaning solution; and

an adhesive layer coupled to the circular plate, the adhesive layer having sufficient width to accommodate the diameter of the semiconductor wafer for attaching the circular plate to an entire surface of the semiconductor wafer, the adhesive layer being removable by contact with the cleaning solution.

Applicants also note that claim 45 recites that:

45. A disposable disk for protecting a substrate during a grinding process, the disposable disk comprising:

a substantially circular plate comprising a continuous member extending the entirety of a surface of the substrate, the circular plate being characterized by a plate diameter substantially the same as a substrate diameter of the substrate, the circular plate being removable by contact with a cleaning solution; and

an adhesive layer coupled to the circular plate, the adhesive layer having sufficient width to accommodate the diameter of the substrate for attaching the circular

plate to an entire surface of the substrate, the adhesive layer being removable by contact with the cleaning solution.

None of the prior art references teach or suggest a protective disk or a disposable disk as recited in any of these claims

Respectfully submitted,

/Richard T. Ogawa/

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